

## PIP Healthcare – Clinical trial Lokeren hospital

**LOCATION:** Lokeren, Belgium

**DATE:** september 2006 – december 2008

**Products used:** PIP Floor Cleaner, PIP Sanitary Cleaner, PIP Interior Cleaner, PIP Allergy Free

**Co-ordinator:** Dr. Robin Temmerman

### Goal of the test

To validate the PIP Healthcare cleaning products and determine their effect on the microbiota of surfaces in a clinical environment.

### Results

In order to realize the concept of microbial management, Chrisal developed a set of revolutionary cleaning products, PIP Healthcare, in which PIP stands for Probiotics In Progress. These products contain green detergents, enzymes and probiotic bacteria to effectively remove and consume all dirt during and up to 3 days after cleaning. As a result, the surface become absolutely pure and void of any biofilm. This results in a much better dirt removal, reduction and prevention of smells/odours and the creation of a healthy microbiota. For more than 2 years a clinical trial was performed at the city hospital of Lokeren in order to validate these products. All microbial analyses were carried out by the Laboratory of Microbial Ecology and Technology of Prof. Willy Verstraete (Ghent University) and UGhent spin-off company Avecom for data analysis. This registered clinical trial was approved by the ethics committee.

Compared to conventional chemical cleaning/disinfection, PIP Healthcare cleaning had the following effect on the microbiota of surfaces:

- Total number of bacteria: +10%
- Risk on coliforms: - 50%
- Risk on MRSA: - 80%
- Risk on Clostridium bacteria: - 90%

From these results it is clear that cleaning with the new generation of probiotic cleaning products creates a stable and healthy microbial environment in the hospital.

Additionally, the PIP Healthcare products were found to have a much better dirt removal efficacy because of the 3-day action of the probiotics after cleaning. A remarkable removal of odours was reported by the cleaning staff, as well as a much improved safety because of the neutral, green composition of the products.

### Conclusion

**The results obtained in the course of this clinical trial demonstrate that the new generation of probiotic cleaning products provides a sustainable solution to problems with hospital bacteria being resistant to the current chemical cleaning and disinfection agents.**